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SENATE

REPORT
101-343

AUTHORIZING THE BOARD OF REGENTS OF THE SMITHSONIAN INSTITUTION TO PLAN AND DESIGN AN EXTENSION OF THE NATIONAL AIR AND SPACE MUSEUM AT WASHINGTON DULLES INTERNATIONAL AIRPORT, AND FOR OTHER PURPOSES

JUNE 27 (legislative day, JUNE 11), 1990.—Ordered to be printed

Mr. FORD, from the Committee on Rules and Administration, submitted the following

REPORT

[To accompany S. 2636]

The Committee on Rules and Administration, having considered S. 2636, a bill to authorize the Board of Regents of the Smithsonian Institution to plan and design an extension of the National Air and Space Museum at Washington Dulles International Airport, and for other purposes, reports favorably thereon and recommends that the bill do pass.

PURPOSE OF THE BILL

The purpose of S. 2636 is to authorize an appropriation of $9 million, effective October 1, 1991, to the Board of Regents of the Smithsonian Institution for the planning and design of a facility at Dulles Airport for a National Air and Space Museum extension.

BACKGROUND

The Board of Regents of the Smithsonian Institution, at its meeting on May 7, 1990, requested its Congressional Members to introduce and support legislation providing authority for planning and design of an extension of the National Air and Space Museum and for appropriations of $9 million in Fiscal Year 1992 for that purpose. Such extension is needed because there is no room for many important air and spacecraft at the Museum on the Mall or the storage facility in Suitland, Maryland, and it is impossible to transport very large exhibits to those locations. In addition, the Suitland facility is without proper environmental controls needed to preserve the artifacts.

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The Museum's growing collection requires additional hangar-like exhibition space. It is estimated that the proposed extension would require 1.5 million gross square feet of building area. Over the past several years the Board of Regents has considered many possible locations for this museum extension; it has selected the Washington Dulles International Airport location for its convenience both to scholars invovled in research and to the general public.

The passage of S. 2636 would enable the Smithsonian to continue the planning and design of the proposed extension. The Institution will seek funds for construction from non-Federal sources; the Commonwealth of Virginia has already offered its financial and strategic support.

Senator Garn introduced the bill for himself and Senators Moynihan, Warner and Robb on May 16, 1990 and it was referred to the Committee on Rules and Administration. Robert McC. Adams, Secretary of the Smithsonian Institution, submitted his report to Chairman Wendell H. Ford by letter of June 7, 1990, a copy of which is included herein, together with letters of support from Mr. Garn and Mr. Moynihan.

SMITHSONIAN INSTITUTION,
Washington, DC, June 7, 1990.

Hon. WENDELL H. FORD,
Chairman, Committee on Rules and Administration, U.S. Senate, Washington, DC.

DEAR MR. CHAIRMAN: I would like to take this opportunity to comment on S. 2636, a bill to authorize the Board of Regents of the Smithsonian Institution to plan and design an extension of the National Air and Space Museum at Washington Dulles International Airport, and for other purposes.

At its meeting on May 7, 1990, the Board of Regents of the Smithsonian Institution requested its Congressional Members to introduce and support legislation providing authority for planning and design of an extension of the National Air and Space Museum and for appropriations of $9,000,000 in Fiscal Year 1992 with which to carry out that work. Senator Garn and Senator Moynihan, who are among the sponsors of S. 2636, are members of the Smithsonian's Board of Regents.

The measure results from extensive consideration by the Regents over a period of years to respond to the statutory mandate (20 U.S.C. 77a) of the Museum to "collect, preserve, and display aeronautical and space flight equipment of historical interest and significance." In its pursuit of that mandate across the years the Smithsonian has amassed one of the great collections of air and spacecraft in the world, and in the process has attracted and educated millions of visitors. However, in the final decade of a century dominated by powered flight through the atmosphere and out into space, which has reshaped the way we live, trade, and travel here on Earth, while exploring the planets, the stars, and the galaxies in the universe beyond, the ability of the Institution to carry that mandate forward is threatened.

Three major problems jeopardize the future of the National Air and Space Museum. First, neither the Museum on the Mall nor its Paul E. Garber Preservation, Restoration, and Storage Facility in

Suitland, Maryland, have sufficient space in which to house properly or exhibit artifacts now in or available for our collection. Many important airplanes are stored in pieces at the Garber Facility; others are stored in the Arizona desert because there is no room for them in Washington.

Second, it is virtually impossible to transport very large air and spacecraft, such as the Space Shuttle Orbiter *Enterprise* or the Concorde which has been promised by Air France, to either the Museum on the Mall or to the Garber Facility. Very large artifacts cannot readily be moved by road because urbanization and obstacles such as overpasses require their laborious and sometimes destructive disassembly. Thus, their movement intact must be done by air.

Third, the physical integrity of eighty percent of the national collections now housed at the Garber Facility is compromised by the deterioration of its overcrowded warehouses which are without proper environmental controls.

When the Museum on the Mall opened in 1976, the Regents recognized that an extension would be required in order for the Museum to keep pace with developments in aerospace technology. In 1981 the Museum conducted a survey of potentially available sites within an hour by car from the Mall that had access to an active runway. Dulles and Baltimore-Washington International Airport most fully met those requirements.

More recently, it has been recognized that an extension, in addition to providing appropriate facilities for the preservation and exhibition of growing collections of air and spacecraft, also offers an opportunity to develop a wide range of related exhibitions on important issues such as global environmental systems and social impacts of aviation. In addition, within the larger spaces of an extension opportunities will be present for improved and expanded programs of science and mathematics education and computer interactive technology, together with the communications networks that will enable the Smithsonian to share these resources with people far beyond Washington and, indeed around the world.

An important legacy of aviation and spaceflight is the technology that permits us to view the surface of our planet as a whole and to examine, remotely or in person, almost any place we wish, to any extent, at any time, whether that region lies on land, at sea, or high in the atmosphere. That technology affects our lives in other profound ways—with synchronous satellites linking the world in a network of information transmitted at the speed of light across national borders, among institutions and between ordinary people; with satellite sensors providing warning of severe storms or locating new resources; with surveillance aircraft and satellites observing the military disposition of potential adversaries, verifying treaty compliance, and preventing false alarms which otherwise might result in untold consequences to the global community.

The legacy also allows millions of us to travel to distant lands each year or to be shuttled from place to place for pleasure, knowledge, trade, defense, or diplomacy. We learn of other customs and cultures, each with its own traditions, its own dignity, and begin to see the world not as detached observers, but as participants in a shared human enterprise.

Through tools of observation and communication there unfolds as well a story of spreading industrial pollution, bulging cities, and tangled highways; of the destruction of forests and ecosystems; of massive soil erosion and the spread of deserts; and of inadvertent climate modification through the addition of atmospheric trace gases and pollutants that possibly could threaten the survival of our global life support system.

These views of the Earth could be illuminated at an extension of the Air and Space Museum by a variety of exhibitions that might, for example, trace the changing industrial, agricultural, and demographic nature of regions through time, as related to the historical development of transportation—roads, rails, and aircraft. Others might examine what we are learning about the Earth through studies in comparative planetology—how our understanding of terrestrial climate change, the atmospheric greenhouse effect, desert land forms, and tectonic processes is expanding with the study of other planetary bodies through space probes.

Initial planning for facilities to fill our needs and realize our visions has required a number of different studies. The size of the proposed extension is driven by the scope of the Air and Space Museum's collections, while the type of construction required will be determined by the size and weight of individual artifacts, as well as by the need for temperature and humidity control.

To specify those factors, the Museum's Aeronautics Department, whose collections will need by far the largest portion of the area contemplated, completed a detailed, year-long study to produce a collections rationale and develop a master plan for future acquisitions and deaccessions. The plan is reasonably firm out to the year 2025 because aircraft which could be added to our collections by that time are for the most part known. Aircraft coming on line today have life expectancies of about forty years; at the earliest they will go out of service toward the end of the first quarter of the next century.

In specifying the projected holdings of the Museum's collections, the collections rationale also provides information suggesting the kinds of buildings that will be needed—the dimensions of individual structures, their required floor loading, the spans and strengths of beams from which aircraft would be suspended, and similar construction parameters.

By the year 2025, the Museum projects that it will have acquired some 74 important airplanes in addition to the 350 currently in the collection. Together with the airplanes that must be moved from the Garber Facility and from storage in Arizona, these acquisitions, many of which are large, will require an exhibition area, mostly in hangars or buildings of similar construction, of approximately 786,000 gross square feet (g.s.f.). In one area we will need to provide an internal vertical clearance of 75 feet in order to accommodate a Boeing 747, the largest airplane we expect to acquire, which is 231 feet long, has a wing span of 196 feet, and tail height of 63 feet. Other areas will require vertical clearance of 50 feet and flooring that can support loads up to 42,000 pounds for the Boeing 707.

These parameters, together with other assessments of the size and future growth of the Museum's exhibition facilities and its important archives, utilized continuously by scholars and the public,

were translated into a preliminary program for buildings to house collections, exhibitions, and staff by the design firm of Hellmuth, Obata and Kassabaum (HOK). A fully-realized extension would require 1.5 million g.s.f. of building area, more than half of which would be dedicated to exhibition and restoration activities. It could be constructed in three phases in such a manner that Phase I would constitute a viable facility that could be opened to the public and satisfy other pressing needs.

Phase I would encompass 673,000 g.s.f. and include most of the fundamental infrastructure required for a complete extension. Its elements would consist of wide-span exhibition space for appropriate housing and care of collections now at the Garber Facility and for the anticipated growth of collections over a five-year period (134,000 g.s.f.); a restoration facility for conservation and the preparation of artifacts for exhibit (156,000 g.s.f.); a Mall-quality gallery (48,000 g.s.f.); storage for the Museum's study collections and archives (168,000 g.s.f.) and 167,000 g.s.f. for office support for professional staff; a large format film theater; and necessary building and visitor services. Parking facilities for an initial increment of at least 2.2 million visitors annually also would be provided. Phases II and III would consist of additional wide-span exhibition space and galleries, plus office, visitor, support, and parking facilities to complete the extension.

The cost of constructing Phase I of the proposed extension is estimated by HOK at $162 million; that of the complete program is $325 million. One-time start-up expenses for Phase I have been estimated at $12 million which includes costs for the opening exhibits, furnishings, security and physical plant mobilization, and relocating collections from Garber. Annual operating costs for Phase I are estimated at $10 million.

Approval of S. 2636 will enable the Institution to continue planning in a prudent manner, to develop design altenatives, to refine cost estimates, and to investigate means of financing construction of the extension. With respect to the latter, we are very pleased by the commitment of the Commonwealth of Virginia as expressed in the enclosed copy of a letter dated April 20, 1990 from Governor Wilder. We certainly are well aware of the current and prospective demands on the Federal budget, and expect to seek substantial funds necessary for construction from non-Federal sources.

In the current fiscal year the Smithsonian expects to apply $300,000 to master planning of the Dulles site and to the environmental analyses that must of necessity precede construction. We plan for this work to continue in Fiscal Year 1991 with $375,000 in our pending budget request. The availability of the $9,000,000 authorized in S. 2636 in Fiscal Year 1992 will allow us to proceed to architectural design. If this schedule holds and we are able to develop funding sources for construction, it would be possible for the extension to open to the public on July 2, 1995, the nineteenth anniversary of the opening of the Mall museum.

The Office of Management and Budget advises that it has no objection to the submission of this report from the standpoint of the Administration's program.

Sincerely,

ROBERT MCC. ADAMS,
Secretary.

Enclosure.

U.S. SENATE,
Washington, DC, June 11, 1990.

Hon. WENDELL H. FORD,
Chairman, Committee on Rules and Administration, U.S. Senate, Washington, DC.

DEAR WENDELL: I request that the Senate Rules Committee consider S. 2636, a bill to authorize the Board of Regents of the Smithsonian Institution to plan and design an extension of the National Air and Space Museum at Dulles International Airport, at its markup on Wednesday, June 13, 1990.

Dulles has been considered a natural choice for the Smithsonian's air and space expansion since the project was first contemplated. After in-depth review of other potential sights, the Board of Regents has again confirmed its choice to be Dulles.

In addition to its close ties to the Nation's Capitol, Dulles features a convenient location, ample space, and nationally-recognized architecture. Plans are under way to improve public transportation to the airport, and the Dulles access road already makes it easily accessible. As importantly, local governments and the Commonwealth of Virginia have offered their financial and strategic support in working toward the completion of this long-awaited project.

The need for this musuem extension has been affirmed again and again. The Space Shuttle Enterprise is already located at Dulles and is awaiting a permanent exhibit site. Other large aircraft, currently being stored in Maryland, Arizona and other sites, are treasures of our aviation history and should be available for study and viewing by both scholars and the general public.

It is time to get on with this project. Accordingly, I asked the Committee to consider and favorably report S. 2636.

Sincerely,

JAKE GARN.

U.S. SENATE,
Washington, DC, June 11, 1990.

Hon. WENDELL H. FORD,
Chairman, Committee on Rules and Administration, U.S. Senate, Washington, DC.

DEAR CHAIRMAN FORD: I am writing to lend my support to S. 2636, a bill that would authorize the Board of Regents of the Smithsonian Institution to plan and design an extension of the National Air and Space Museum at Washington Dulles International Airport.

Since 1981, the Smithsonian Institution has considered many possible locations for the National Air and Space Museum extension. After hearing numerous presentations and considering the many details involved with a project of this size, the Board of Regents ap-

proved the Washington Dulles International Airport location. I unequivocally support this decision.

I urge my colleagues to support the Air and Space Museum extension by authorizing the Smithsonian to act on the Board of Regents' selection.

Sincerely,

DANIEL PATRICK MOYNIHAN.

COMMITTEE ACTION

On June 13, 1990, the Committee on Rules and Administration held a markup session on S. 2636. It was passed by a record vote of 9–0 and was ordered favorably reported by the Committee.

COMMITTEE ROLLCALL VOTE

In compliance with paragraph 7 (b) and (c) of rule XXVI of the Standing Rules of the Senate, the record of the rollcall vote in the Committee on Rules and Administration during its consideration of this measure was:

YEAS—9 NAYS—0

Mr. Pell
Mr. DeConcini
Mr. Moynihan
Mr. Stevens
Mr. Hatfield
Mr. Dole
Mr. Garn
Mr. McConnell
Mr. Ford

The Chairman presented the proxies of Mr. Byrd, Mr. Inouye, Mr. Gore and Mr. Dodd in favor of the bill.

COST ESTIMATE

In compliance with paragraph 11(a) of rule XXVI of the Standing Rules of the Senate, the estimate of costs of this measure prepared by the Congressional Budget Office pursuant to section 403 of the Congressional Budget Act, is as follows:

CONGRESSIONAL BUDGET OFFICE—COST ESTIMATE

1. Bill number: S. 2636.
2. Bill title: None.
3. Bill status: As ordered reported by the Senate Committee on Rules and Administration on June 13, 1990.
4. Bill purpose: To authorize the Board of Regents of the Smithsonian Institution to plan and design an extension of the National Air and Space Museum at Washington Dulles International Airport, and for other purposes.
5. Estimated cost to the Federal Government:

[In millions of dollars]

	Fiscal year				
	1991	1992	1993	1994	1995
Authorization level		9			
Estimated outlays		6	3		

The costs of this bill fall in Function 500.

Basis of estimate: The authorization level for 1992 is stated in the bill. Estimated total outlays assume full appropriation of the stated authorization level at the start of 1992. Based on information from the Smithsonian Institution, these funds would be spent out over a two-year period. S. 2636 provides only for the planning and designing of the National Air and Space Museum at Washington Dulles International Airport.

6. Estimated cost to State and local government: None.

7. Estimate comparison: None.

8. Previous CBO estimate: None.

9. Estimate prepared by: Diane Celuch.

10. Estimate approved by: G.C. Nuckols, for James L. Blum, Assistant Director for Budget Analysis.

REGULATORY IMPACT EVALUATION

In accordance with paragraph 11(b) of rule XXVI of the Standing Rules of the Senate, the Committee does not consider that passage of S. 2636 would have any regulatory impact.

CHANGES IN EXISTING LAW

In compliance with paragraph 12 of rule XXVI of the Standing Rules of the Senate, the Committee on Rules and Administration notes that this bill makes no change in existing law.

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